WATSON STANDARD SAFETY DATA SHEET

ISO 9001 - 2008

Issue Date 25-Aug-2015 **Revision Date** 25-Aug-2015 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 6696

Recommended use of the chemical and restrictions on use
Recommended Use Reserved for industrial and professional use.

Details of the supplier of the safety data sheet
Supplier Address
Watson Industrial Coatings Co. D.B.A Watson Standard
616 Hite Road
Harwick PA, 15049
724-275-1000

Emergency telephone number
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

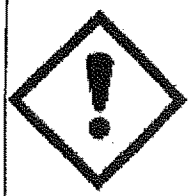
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

Hazard symbol(s) /Pictogram(s)

Emergency Overview

Warning

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction



Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam for extinction
Evacuate area and fight fire from a safe distance

Precautionary Statements - Storage
Store in accordance with local regulations
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Butoxy Ethanol	111-76-2	10 - 30
Copper(III) phthalocyanine	147-14-8	1 - 5
2-Dimethylaminoethanol	108-01-0	1 - 5
Titanium Dioxide	13463-67-7	1 - 5
Trade Secret Additive	Proprietary	0.1 - 1
Carbon Black	1333-86-4	0.1 - 1

4. FIRST AID MEASURES

First aid measures

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion If swallowed, call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2). Extinguishing powder. Dry chemical. Alcohol resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. All equipment used when handling the product must be grounded. Use personal protection recommended in Section 8. Wash thoroughly after handling.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. Prevent product from entering drains. Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Never pierce, drill, grind, cut, saw or weld any empty container.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Exposure Limits
2-Butoxy Ethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³	Mexico: TWA 26 ppm Mexico: TWA 120 mg/m³ Mexico: STEL 75 ppm Mexico: STEL 360 mg/m³
Copper(III) phthalocyanine 147-14-8	TWA: 1 mg/m³ Cu dust and mist	-	IDLH: 100 mg/m³ Cu dust and mist TWA: 1 mg/m³ Cu dust and mist	-
Titanium Dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³
Carbon Black 1333-86-4	TWA: 3 mg/m³ Inhalable fraction	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH	Mexico: TWA 3.5 mg/m³ Mexico: STEL 7 mg/m³

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Face protection shield. Tight sealing safety goggles.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Odor	Amines
Color	opaque, blue

Property	Values	Remarks • Method
pH	8.0-8.5	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash Point	> 94 °C / > 200 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.04	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	8.65 lb/gal +/- 0.20
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
Not Applicable

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products
None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Butoxy Ethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
2-Dimethylaminoethanol 108-01-0	= 1803 mg/kg (Rat)	= 1220 mg/kg (Rabbit) = 1370 µL/kg (Rabbit)	= 1641 ppm (Rat) 4 h
Titanium Dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B). This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid. This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
2-Butoxy Ethanol 111-76-2	A3	Group 3	-	-	-
Titanium Dioxide 13463-67-7	-	Group 2B	-	X	-
Carbon Black 1333-86-4	A3	Group 2B	-	X	-

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target Organ Effects blood, Central nervous system, Eyes, Hematopoietic System, kidney, liver, lungs, Respiratory system, Skin.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 1.89916055% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

2.67142% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Butoxy Ethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1000: 48 h Daphnia magna mg/L EC50 1698 - 1940: 24 h Daphnia magna mg/L EC50
Copper(II) phthalocyanine 147-14-8	-	100: 48 h Oryzias latipes mg/L LC50 static	-
2-Dimethylaminoethanol 108-01-0	35: 72 h Desmodesmus subspicatus mg/L EC50	81: 96 h Pimephales promelas mg/L LC50 static	98.77: 48 h Daphnia magna mg/L EC50
Carbon Black 1333-86-4	-	-	5600: 24 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
2-Butoxy Ethanol 111-76-2	0.81
Copper(II) phthalocyanine 147-14-8	6.6
2-Dimethylaminoethanol 108-01-0	-0.55

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Residual vapors may explode on ignition. Never pierce, drill, grind, cut, saw or weld any empty container. Disposal should be in accordance with applicable regional, national and local laws and regulations. Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Not Determined
ENCS	Not Determined
IECSC	Not Determined
KECL	Not Determined
PICCS	Not Determined
AICS	Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2-Butoxy Ethanol - 111-76-2	1.0
Copper(II) phthalocyanine - 147-14-8	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

US State Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Pennsylvania - Special Hazardous Substances	Pennsylvania - Environmental Hazard List
2-Butoxy Ethanol 111-76-2	X	X	X	-	-
Copper(II) phthalocyanine 147-14-8	X	-	X	-	-
2-Dimethylaminoethanol 108-01-0	X	X	X	-	-
Titanium Dioxide 13463-67-7	X	X	X	-	-
Stoddard solvent, solvent naphta 8052-41-3	X	X	X	-	-
Triethylamine 121-44-8	X	X	X	-	X
Carbon Black 1333-86-4	X	X	X	X	-
Ethylbenzene 100-41-4	X	X	X	-	X
Distillates (petroleum), solvent-refined light paraffinic 64741-89-5	-	X	-	-	-

16. OTHER INFORMATION

Issue Date 25-Aug-2015
Revision Date 25-Aug-2015
Revision Note No information available

Disclaimer

The information contained herein is derived from data provided by suppliers and other sources believed to be reliable, and is furnished without warranty of any kind. The information relating to the product is for guidance purposes only, is based only on downstream uses known to Watson Standard, and may not be valid for the product used in combination with any other materials. Users of this product must make determinations of suitability and completeness of information from this and all other sources to ensure proper use and disposal of this product, safety and health of employees, customers, and the protection of the environment. Watson Standard will not be liable for any special, incidental, or consequential damages associated with the use or handling of the product.

End of Safety Data Sheet

WATSON STANDARD
ISO 9001 - 2008

SAFETY DATA SHEET

Issue Date 16-Jul-2015 **Revision Date** 16-Jul-2015 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 6829

Recommended use of the chemical and restrictions on use
Recommended Use Reserved for industrial and professional use.

Details of the supplier of the safety data sheet
Supplier Address
Watson Industrial Coatings Co. D.B.A Watson Standard
616 Hite Road
Harwick PA, 15049
724-275-1000

Emergency telephone number
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

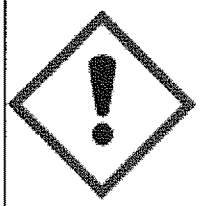
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

Hazard symbol(s) /Pictogram(s)

Emergency Overview

Warning

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction



Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam for extinction
Evacuate area and fight fire from a safe distance

Precautionary Statements - Storage
Store in accordance with local regulations
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Butoxy Ethanol	111-76-2	10 - 30
Titanium Dioxide	13463-67-7	5 - 10
Ethanol, 2-(butoxyethoxy)-	112-34-5	1 - 5
2-Dimethylaminoethanol	108-01-0	1 - 5
Carbon Black	1333-86-4	0.1 - 1
Trade Secret Additive	Proprietary	0.1 - 1

4. FIRST AID MEASURES

First aid measures

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion If swallowed, call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2). Extinguishing powder. Dry chemical. Alcohol resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. All equipment used when handling the product must be grounded. Use personal protection recommended in Section 8. Wash thoroughly after handling.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. Prevent product from entering drains. Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. — No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Never pierce, drill, grind, cut, saw or weld any empty container.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Exposure Limits
2-Butoxy Ethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³	Mexico: TWA 26 ppm Mexico: TWA 120 mg/m³ Mexico: STEL 75 ppm Mexico: STEL 360 mg/m³
Titanium Dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³
Ethanol, 2-(butoxyethoxy)- 112-34-5	TWA: 10 ppm inhalable fraction and vapor	-	-	-
Carbon Black 1333-86-4	TWA: 3 mg/m³ inhalable fraction	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH	Mexico: TWA 3.5 mg/m³ Mexico: STEL 7 mg/m³

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls	Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Odor	Amines
Color	opaque, gray

Property	Values	Remarks • Method
pH	8.0-8.5	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash Point	> 94 °C / > 201 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.12	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	9.30 lb/gal +/- 0.20
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
Not Applicable

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products
None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Butoxy Ethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Titanium Dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
Ethanol, 2-(butoxyethoxy)- 112-34-5	= 3384 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-
2-Dimethylaminoethanol 108-01-0	= 1803 mg/kg (Rat)	= 1220 mg/kg (Rabbit) = 1370 µL/kg (Rabbit)	= 1641 ppm (Rat) 4 h
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.

Carcinogenicity

This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B). This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form. This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
2-Butoxy Ethanol 111-76-2	A3	Group 3	-	-	-
Titanium Dioxide 13463-67-7	-	Group 2B	-	X	-
Carbon Black 1333-86-4	A3	Group 2B	-	X	-

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0.40056362% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

1.11516% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Butoxy Ethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1000: 48 h Daphnia magna mg/L EC50 1698 - 1940: 24 h Daphnia magna mg/L EC50
Ethanol, 2-(butoxyethoxy)- 112-34-5	100: 96 h Desmodesmus subspicatus mg/L EC50	1300: 96 h Lepomis macrochirus mg/L LC50 static	100: 48 h Daphnia magna mg/L EC50 2850: 24 h Daphnia magna mg/L EC50
2-Dimethylaminoethanol 108-01-0	35: 72 h Desmodesmus subspicatus mg/L EC50	81: 96 h Pimephales promelas mg/L LC50 static	98.77: 48 h Daphnia magna mg/L EC50
Carbon Black 1333-86-4	-	-	5600: 24 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
2-Butoxy Ethanol 111-76-2	0.81
2-Dimethylaminoethanol 108-01-0	-0.55

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Residual vapors may explode on ignition. Never pierce, drill, grind, cut, saw or weld any empty container. Disposal should be in accordance with applicable regional, national and local laws and regulations. Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Not Determined
EINECS/ELINCS	Not Determined
ENCS	Not Determined
IECSC	Not Determined
KECL	Not Determined
PICCS	Not Determined
AICS	Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2-Butoxy Ethanol - 111-76-2	1.0
Ethanol, 2-(butoxyethoxy)- - 112-34-5	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

US State Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Pennsylvania - Special Hazardous Substances	Pennsylvania - Environmental Hazard List
2-Butoxy Ethanol 111-76-2	X	X	X	-	-
Titanium Dioxide 13463-67-7	X	X	X	-	-
Ethanol, 2-(butoxyethoxy)- 112-34-5	X	-	X	-	-
2-Dimethylaminoethanol 108-01-0	X	X	X	-	-
Stoddard solvent, solvent naphta 8052-41-3	X	X	X	-	-
Silica, amorphous precipitated 112926-00-8	X	X	X	-	-
Aluminum oxide (Al2O3) 1344-28-1	X	X	X	-	X
Carbon Black 1333-86-4	X	X	X	X	-
Triethylamine 121-44-8	X	X	X	-	X
Ethylbenzene 100-41-4	X	X	X	-	X
Distillates (petroleum), solvent-refined light paraffinic 64741-89-5	-	X	-	-	-

16. OTHER INFORMATION

Issue Date 16-Jul-2015
Revision Date 16-Jul-2015
Revision Note No information available

Disclaimer

The information contained herein is derived from data provided by suppliers and other sources believed to be reliable, and is furnished without warranty of any kind. The information relating to the product is for guidance purposes only, is based only on downstream uses known to Watson Standard, and may not be valid for the product used in combination with any other materials. Users of this product must make determinations of suitability and completeness of information from this and all other sources to ensure proper use and disposal of this product, safety and health of employees, customers, and the protection of the environment. Watson Standard will not be liable for any special, incidental, or consequential damages associated with the use or handling of the product.

End of Safety Data Sheet

WATSON STANDARD ISO 9001

SAFETY DATA SHEET

Issue Date 02-Jun-2017 **Revision Date** 02-Jun-2017 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 6837

Recommended use of the chemical and restrictions on use
Recommended Use Reserved for industrial and professional use.

Details of the supplier of the safety data sheet
Supplier Address
Watson Industrial Coatings Co. D.B.A Watson Standard
616 Hite Road
Harwick PA, 15049
USA
+1-724-275-1000

Emergency telephone number
Emergency Telephone Chemtrec USA 1-800-424-9300
Chemtrec International +1 703-741-5970

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

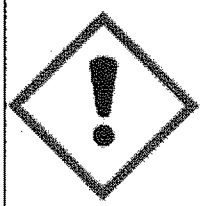
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

Hazard symbol(s) /Pictogram(s)

Emergency Overview

Warning

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction



Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response
Specific treatment (see Section 4 / First Aid on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam for extinction
Evacuate area and fight fire from a safe distance

Precautionary Statements - Storage
Store in accordance with local regulations
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Butoxy Ethanol	111-76-2	10 - 30
Titanium Dioxide	13463-67-7	1 - 5
2-Dimethylaminoethanol	108-01-0	1 - 5
Iron hydroxide oxide (Fe(OH)O)	20344-49-4	1 - 5
Carbon Black	1333-86-4	0.1 - 1
Tetramethyl-5-decyne-4,7-diol, 2,4,7,9-,	126-86-3	0.1 - 1

4. FIRST AID MEASURES

First aid measures

Eye contact — IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact — Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation — Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion — If swallowed, call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2). Extinguishing powder. Dry chemical. Alcohol resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions — ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. All equipment used when handling the product must be grounded. Use personal protection recommended in Section 8. Wash thoroughly after handling.

Methods and material for containment and cleaning up

Methods for containment — Prevent further leakage or spillage if safe to do so.

Methods for cleaning up — Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. Prevent product from entering drains. Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling — Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Never pierce, drill, grind, cut, saw or weld any empty container.

Conditions for safe storage, including any incompatibilities

Storage Conditions — Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials — Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Exposure Limits
2-Butoxy Ethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³	Mexico: TWA 26 ppm Mexico: TWA 120 mg/m³ Mexico: STEL 75 ppm Mexico: STEL 360 mg/m³
Titanium Dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³
Iron hydroxide oxide (Fe(OH)O) 20344-49-4	TWA: 1 mg/m³ Fe	(vacated) TWA: 1 mg/m³ Fe	TWA: 1 mg/m³ Fe	Mexico: TWA 1 mg/m³ Mexico: STEL 2 mg/m³
Carbon Black 1333-86-4	TWA: 3 mg/m³ inhalable fraction	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³	Mexico: TWA 3.5 mg/m³ Mexico: STEL 7 mg/m³

			TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH	

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Face protection shield. Tight sealing safety goggles.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Odor Ester
Color gray

Property	Values	Remarks • Method
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	> 93.3 °C	
Flash Point	> 93.3 °C / > 200 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.08	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	184.2	mm2/s
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point No information available
Molecular weight No information available

VOC Content (%)	No information available
Density	9.0 lb/gal +/- 0.20
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
Not Applicable

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products
None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Butoxy Ethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Titanium Dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
2-Dimethylaminoethanol 108-01-0	= 1803 mg/kg (Rat)	= 1220 mg/kg (Rabbit) = 1370 µL/kg (Rabbit)	= 1641 ppm (Rat) 4 h
Iron hydroxide oxide (Fe(OH)O) 20344-49-4	> 10000 mg/kg (Rat)	-	-
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.

This product contains carbon black in a non-respirable form. Inhalation of un-bound carbon black cannot reasonably be expected to occur through the use of this product. Carbon black is only classified as a carcinogen by respiratory route of exposure. This product contains titanium dioxide in a non-respirable form. Inhalation of un-bound titanium dioxide cannot reasonably be expected to occur through the use of this product. Titanium dioxide is only classified as a carcinogen by respiratory route of exposure.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
2-Butoxy Ethanol 111-76-2	A3	Group 3	-	-	-
Titanium Dioxide 13463-67-7	-	Group 2B	-	X	-
Carbon Black 1333-86-4	A3	Group 2B	-	X	-

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure. May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target Organ Effects blood, Central nervous system, Eyes, Hematopoietic System, kidney, liver, lungs, Respiratory system, Skin, Gastrointestinal tract (GI).
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0.72566433 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

1.99798 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Butoxy Ethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1000: 48 h Daphnia magna mg/L EC50 1698 - 1940: 24 h Daphnia magna mg/L EC50
2-Dimethylaminoethanol 108-01-0	35: 72 h Desmodesmus subspicatus mg/L EC50	81: 96 h Pimephales promelas mg/L LC50 static	98.77: 48 h Daphnia magna mg/L EC50
Carbon Black 1333-86-4	-	-	5600: 24 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
2-Butoxy Ethanol 111-76-2	0.81
2-Dimethylaminoethanol 108-01-0	-0.55

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Residual vapors may explode on ignition. Never pierce, drill, grind, cut, saw or weld any empty container. Disposal should be in accordance with applicable regional, national and local laws and regulations. Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Not Determined
ENCS	Not Determined
IECSC	Not Determined
KECL	Not Determined
PICCS	Not Determined
AICS	Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2-Butoxy Ethanol - 111-76-2	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

US State Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Pennsylvania -	Pennsylvania -

				Special Hazardous Substances	Environmental Hazard List
2-Butoxy Ethanol 111-76-2	X	X	X	-	-
Titanium Dioxide 13463-67-7	X	X	X	-	-
2-Dimethylaminoethanol 108-01-0	X	X	X	-	-
Carbon Black 1333-86-4	X	X	X	X	-
Benzenesulfonic acid, dodecyl- 27176-87-0	X	X	X	-	X
Silica, amorphous precipitated 112926-00-8	X	X	X	-	-
Aluminum oxide (Al2O3) 1344-28-1	X	X	X	-	X
Ethylbenzene 100-41-4	X	X	X	-	X
Distillates (petroleum), solvent-refined light paraffinic 64741-89-5	-	X	-	-	-
Stoddard Solvent, solvent naphta 8052-41-3	X	X	X	-	-

16. OTHER INFORMATION

Issue Date 02-Jun-2017
Revision Date 02-Jun-2017
Revision Note Not Applicable

Disclaimer

The information contained herein is derived from data provided by suppliers and other sources believed to be reliable, and is furnished without warranty of any kind. The information relating to the product is for guidance purposes only, is based only on downstream uses known to Watson Standard, and may not be valid for the product used in combination with any other materials. Users of this product must make determinations of suitability and completeness of information from this and all other sources to ensure proper use and disposal of this product, safety and health of employees, customers, and the protection of the environment. Watson Standard will not be liable for any special, incidental, or consequential damages associated with the use or handling of the product.

End of Safety Data Sheet

WATSON STANDARD
ISO 9001 - 2008

SAFETY DATA SHEET

Issue Date 28-May-2015 **Revision Date** 09-Dec-2015 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 6839

Recommended use of the chemical and restrictions on use
Recommended Use Reserved for industrial and professional use.

Details of the supplier of the safety data sheet
Supplier Address
Watson Industrial Coatings Co. D.B.A Watson Standard
616 Hite Road
Harwick PA, 15049
USA
+1-724-275-1000

Emergency telephone number
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

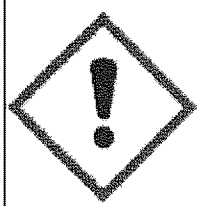
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Skin sensitization	Category 1

Hazard symbol(s) /Pictogram(s)

Emergency Overview

Warning

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H317 - May cause an allergic skin reaction



Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Contaminated work clothing should not be allowed out of the workplace

Precautionary Statements - Response
Specific treatment (see .? on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
IF ON SKIN: Wash with plenty of soap and water
Take off contaminated clothing and wash before reuse
If skin irritation or rash occurs: Get medical advice/attention
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam for extinction
Evacuate area and fight fire from a safe distance

Precautionary Statements - Storage
Store in accordance with local regulations
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Butoxy Ethanol	111-76-2	10 - 30
Titanium Dioxide	13463-67-7	1 - 5
2-Dimethylaminoethanol	108-01-0	1 - 5
Carbon Black	1333-86-4	0.1 - 1
Trade Secret Additive	Proprietary	0.1 - 1

4. FIRST AID MEASURES

First aid measures

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion If swallowed, call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2). Extinguishing powder. Dry chemical. Alcohol resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. All equipment used when handling the product must be grounded. Use personal protection recommended in Section 8. Wash thoroughly after handling.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. Prevent product from entering drains. Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Never pierce, drill, grind, cut, saw or weld any empty container.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Exposure Limits
2-Butoxy Ethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³	Mexico: TWA 26 ppm Mexico: TWA 120 mg/m³ Mexico: STEL 75 ppm Mexico: STEL 360 mg/m³
Titanium Dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³
Carbon Black 1333-86-4	TWA: 3 mg/m³ inhalable fraction	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH	Mexico: TWA 3.5 mg/m³ Mexico: STEL 7 mg/m³

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Odor Amines
Color opaque, gray

Property	Values	Remarks • Method
pH	8.0-8.5	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash Point	> 94 °C / > 200 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.06	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	8.87 lb/gal +/- 0.20
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
Not Applicable

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products
None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Butoxy Ethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Titanium Dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
2-Dimethylaminoethanol 108-01-0	= 1803 mg/kg (Rat)	= 1220 mg/kg (Rabbit) = 1370 µL/kg (Rabbit)	= 1641 ppm (Rat) 4 h
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B). This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form. This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
2-Butoxy Ethanol 111-76-2	A3	Group 3	-	-	-
Titanium Dioxide 13463-67-7	-	Group 2B	-	X	-
Carbon Black 1333-86-4	A3	Group 2B	-	X	-

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target Organ Effects blood, Central nervous system, Eyes, Hematopoietic System, kidney, liver, lungs, Respiratory system, Skin.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0.30159369% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

1.29493% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Butoxy Ethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1000: 48 h Daphnia magna mg/L EC50 1698 - 1940: 24 h Daphnia magna mg/L EC50
2-Dimethylaminoethanol 108-01-0	35: 72 h Desmodesmus subspicatus mg/L EC50	81: 96 h Pimephales promelas mg/L LC50 static	98.77: 48 h Daphnia magna mg/L EC50
Carbon Black 1333-86-4	-	-	5600: 24 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
2-Butoxy Ethanol 111-76-2	0.81
2-Dimethylaminoethanol 108-01-0	-0.55

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Residual vapors may explode on ignition. Never pierce, drill, grind, cut, saw or weld any empty container. Disposal should be in accordance with applicable regional, national and local laws and regulations. Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT	Not regulated
TDG	Not regulated
MEX	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Not Determined
ENCS	Not Determined
IECSC	Not Determined
KECL	Not Determined
PICCS	Not Determined
AICS	Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2-Butoxy Ethanol - 111-76-2	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

US State Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Pennsylvania - Special Hazardous Substances	Pennsylvania - Environmental Hazard List
2-Butoxy Ethanol 111-76-2	X	X	X	-	-
Titanium Dioxide 13463-67-7	X	X	X	-	-
2-Dimethylaminoethanol 108-01-0	X	X	X	-	-

Stoddard solvent, solvent naphta 8052-41-3	X	X	X	-	-
Carbon Black 1333-86-4	X	X	X	X	-
Benzenesulfonic acid, dodecyl- 27176-87-0	X	X	X	-	X
Silica, amorphous precipitated 112926-00-8	X	X	X	-	-
Aluminum oxide (Al2O3) 1344-28-1	X	X	X	-	X
Ethylbenzene 100-41-4	X	X	X	-	X
Distillates (petroleum), solvent-refined light paraffinic 64741-89-5	-	X	-	-	-

16. OTHER INFORMATION

Issue Date 28-May-2015
Revision Date 09-Dec-2015
Revision Note SDS sections updated 2 16

Disclaimer

The information contained herein is derived from data provided by suppliers and other sources believed to be reliable, and is furnished without warranty of any kind. The information relating to the product is for guidance purposes only, is based only on downstream uses known to Watson Standard, and may not be valid for the product used in combination with any other materials. Users of this product must make determinations of suitability and completeness of information from this and all other sources to ensure proper use and disposal of this product, safety and health of employees, customers, and the protection of the environment. Watson Standard will not be liable for any special, incidental, or consequential damages associated with the use or handling of the product.

End of Safety Data Sheet

WATSON STANDARD
ISO 9001

SAFETY DATA SHEET

Issue Date 09-May-2016 **Revision Date** 09-May-2016 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 6888

Recommended use of the chemical and restrictions on use
Recommended Use Reserved for industrial and professional use.

Details of the supplier of the safety data sheet
Supplier Address
Watson Industrial Coatings Co. D.B.A Watson Standard
616 Hite Road
Harwick PA, 15049
USA
+1-724-275-1000

Emergency telephone number
Emergency Telephone Chemtrec USA 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Hazard symbol(s) /Pictogram(s)

Emergency Overview

Warning

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H226 - Flammable liquid and vapor

Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat and sparks - No Smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting equipment
Use only non-sparking tools
Take precautionary measures against static discharge

Precautionary Statements - Response
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention
If skin irritation occurs: Get medical advice/attention
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)
Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Butoxy Ethanol	111-76-2	10 - 30
Mica	12001-26-2	5 - 10
Titanium Dioxide	13463-67-7	1 - 5
2-Dimethylaminoethanol	108-01-0	1 - 5

4. FIRST AID MEASURES

First aid measures

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion If swallowed, call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO2). Extinguishing powder. Dry chemical. Alcohol resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. All equipment used when handling the product must be grounded. Use personal protection recommended in Section 8. Wash thoroughly after handling.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. Prevent product from entering drains. Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Never pierce, drill, grind, cut, saw or weld any empty container.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Exposure Limits
2-Butoxy Ethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³	Mexico: TWA 26 ppm Mexico: TWA 120 mg/m³ Mexico: STEL 75 ppm Mexico: STEL 360 mg/m³
Mica 12001-26-2	TWA: 3 mg/m³ respirable fraction	(vacated) TWA: 3 mg/m³ respirable dust <1% Crystalline silica TWA: 20 mppcf <1% Crystalline silica	IDLH: 1500 mg/m³ TWA: 3 mg/m³ containing <1% Quartz respirable dust	Mexico: TWA 3 mg/m³

Titanium Dioxide 13463-67-7	TWA: 10 mg/m³	TWA: 15 mg/m³ total dust (vacated) TWA: 10 mg/m³ total dust	IDLH: 5000 mg/m³	Mexico: TWA 10 mg/m³ Mexico: STEL 20 mg/m³

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls
Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state liquid
Odor Amines
Color opaque, gray

Property	Values	Remarks • Method
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	> 36.0 °C	
Flash Point	48.9 °C / 120.0 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.06	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point No information available
Molecular weight No information available

VOC Content (%)	No information available
Density	8.80 lb/gal +/- 0.20
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
Not Applicable

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products
None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Butoxy Ethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Titanium Dioxide 13463-67-7	> 10000 mg/kg (Rat)	-	-
2-Dimethylaminoethanol 108-01-0	= 1803 mg/kg (Rat)	= 1220 mg/kg (Rabbit) = 1370 µL/kg (Rabbit)	= 1641 ppm (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.

Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B). This product contains titanium dioxide which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is a liquid. This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
2-Butoxy Ethanol 111-76-2	A3	Group 3	-	-	-
Titanium Dioxide 13463-67-7	-	Group 2B	-	X	-

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen
IARC (International Agency for Research on Cancer)
Not classifiable as a human carcinogen
Group 2B - Possibly Carcinogenic to Humans
NTP (National Toxicology Program)
Known - Known Carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity May cause adverse effects on the bone marrow and blood-forming system. May cause adverse liver effects.
Target Organ Effects Bladder, blood, Central nervous system, Eyes, Gastrointestinal tract (GI), Hematopoietic System, kidney, liver, lungs, Respiratory system, Skin.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 5.24687585 % of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

6.20569 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Butoxy Ethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1000: 48 h Daphnia magna mg/L EC50 1698 - 1940: 24 h Daphnia magna mg/L EC50
2-Dimethylaminoethanol 108-01-0	35: 72 h Desmodesmus subspicatus mg/L EC50	81: 96 h Pimephales promelas mg/L LC50 static	98.77: 48 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
2-Butoxy Ethanol 111-76-2	0.81
2-Dimethylaminoethanol 108-01-0	-0.55

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes	Residual vapors may explode on ignition. Never pierce, drill, grind, cut, saw or weld any empty container. Disposal should be in accordance with applicable regional, national and local laws and regulations. Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

DOT

UN/ID No.	UN1263
Proper shipping name	Paint
Hazard Class	3
Packing Group	III

TDG

UN/ID No.	UN1263
Proper shipping name	Paint
Hazard Class	3
Packing Group	III

MEX

UN/ID No.	UN1263
Proper shipping name	Paint
Hazard Class	3
Packing Group	III

IATA

UN/ID No.	UN1263
Proper shipping name	Paint
Hazard Class	3
Packing Group	III

IMDG

UN/ID No.	UN1263
Proper shipping name	Paint
Hazard Class	3
Packing Group	III

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Not Determined
ENCS	Not Determined
IECSC	Not Determined
KECL	Not Determined
PICCS	Not Determined
AICS	Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2-Butoxy Ethanol - 111-76-2	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

US State Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Pennsylvania - Special Hazardous Substances	Pennsylvania - Environmental Hazard List
2-Butoxy Ethanol 111-76-2	X	X	X	-	-
Mica 12001-26-2	X	X	X	-	-
Titanium Dioxide 13463-67-7	X	X	X	-	-
2-Dimethylaminoethanol 108-01-0	X	X	X	-	-
Iron oxide (Fe2O3) 1309-37-1	X	X	X	-	-
Tin Dioxide 18282-10-5	X	-	-	-	-
2-Propanol 67-63-0	X	X	X	-	X
Formaldehyde 50-00-0	X	X	X	X	X
Triethylamine 121-44-8	X	X	X	-	X

16. OTHER INFORMATION

Issue Date	09-May-2016
Revision Date	09-May-2016
Revision Note	Not Applicable

Disclaimer

The information contained herein is derived from data provided by suppliers and other sources believed to be reliable, and is furnished without warranty of any kind. The information relating to the product is for guidance purposes only, is based only on downstream uses known to Watson Standard, and may not be valid for the product used in combination with any other materials. Users of this product must make determinations of suitability and completeness of information from this and all other sources to ensure proper use and disposal of this product, safety and health of employees, customers, and the protection of the environment. Watson Standard will not be liable for any special, incidental, or consequential damages associated with the use or handling of the product.

End of Safety Data Sheet

WATSON STANDARD
ISO 9001 - 2008

SAFETY DATA SHEET

Issue Date 07-Apr-2015 **Revision Date** 07-Apr-2015 **Version** 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier
Product Code 6904

Recommended use of the chemical and restrictions on use
Recommended Use Reserved for industrial and professional use.

Details of the supplier of the safety data sheet
Supplier Address
Watson Standard Company
616 Hite Road
Harwick, PA 15049
USA
+1-724-275-1000

Emergency telephone number
Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status
This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

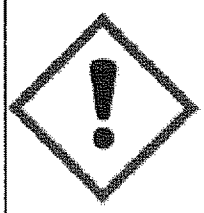
Flammable liquids	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2

Hazard symbol(s) /Pictogram(s)

Emergency Overview

Warning

Hazard statements
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H227 - Combustible liquid



Precautionary Statements - Prevention
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Keep away from heat and sparks - No Smoking

Precautionary Statements - Response
Specific treatment (see .? on this label)
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician if you feel unwell
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
Rinse mouth
In case of fire: Use CO_2, dry chemical, or foam for extinction

Precautionary Statements - Storage
Store in a well-ventilated place. Keep cool

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No	Weight-%
2-Butoxy Ethanol	111-76-2	10 - 30
Carbon Black	1333-86-4	1 - 5
Ethanol, 2-(butoxyethoxy)-	112-34-5	1 - 5
2-Dimethylaminoethanol	108-01-0	1 - 5

4. FIRST AID MEASURES

First aid measures

Eye contact IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Skin Contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If symptoms persist, call a physician.

Inhalation Move to fresh air in case of accidental inhalation of vapors. If symptoms persist, call a physician.

Ingestion If swallowed, call a poison control center or physician immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Carbon dioxide (CO_2). Extinguishing powder. Dry chemical. Alcohol resistant foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical
No information available.

Explosion data
Sensitivity to Mechanical Impact No.
Sensitivity to Static Discharge Yes.

Protective equipment and precautions for firefighters
Wear self-contained breathing apparatus and protective suit.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. All equipment used when handling the product must be grounded. Use personal protection recommended in Section 8. Wash thoroughly after handling.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. Prevent product from entering drains. Take precautionary measures against static discharges. Sweep up and shovel into suitable containers for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash contaminated clothing before reuse. Take precautionary measures against static discharges. Use spark-proof tools and explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Never pierce, drill, grind, cut, saw or weld any empty container.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible materials Strong oxidizing agents. Strong acids. Strong bases.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH	Exposure Limits
2-Butoxy Ethanol 111-76-2	TWA: 20 ppm	TWA: 50 ppm TWA: 240 mg/m³ (vacated) TWA: 25 ppm (vacated) TWA: 120 mg/m³ (vacated) S* S*	IDLH: 700 ppm TWA: 5 ppm TWA: 24 mg/m³	Mexico: TWA 26 ppm Mexico: TWA 120 mg/m³ Mexico: STEL 75 ppm Mexico: STEL 360 mg/m³
Carbon Black 1333-86-4	TWA: 3 mg/m³ inhalable fraction	TWA: 3.5 mg/m³ (vacated) TWA: 3.5 mg/m³	IDLH: 1750 mg/m³ TWA: 3.5 mg/m³ TWA: 0.1 mg/m³ Carbon black in presence of Polycyclic aromatic hydrocarbons PAH	Mexico: TWA 3.5 mg/m³ Mexico: STEL 7 mg/m³
Ethanol, 2-(butoxyethoxy)- 112-34-5	TWA: 10 ppm inhalable fraction and vapor	-	-	-

NIOSH IDLH Immediately Dangerous to Life or Health

Other Information Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Controls	Showers Eyewash stations Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.
Respiratory protection	If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.
General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	liquid
Odor	Amines
Color	opaque, black

Property	Values	Remarks • Method
pH	No information available	
Melting point / freezing point	No information available	
Boiling point / boiling range	No information available	
Flash Point	65.5 °C / 141.8 °F	Pensky-Martens Closed Cup (PMCC)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	1.03	
Water solubility	Soluble in water	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content (%)	No information available
Density	8.65 lb/gal +/- 0.20
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity
Not Applicable

Chemical stability
Stable under normal conditions.

Possibility of Hazardous Reactions
None under normal processing.

Hazardous polymerization Hazardous polymerization does not occur.

Conditions to avoid
Heat, flames and sparks.

Incompatible materials
Strong oxidizing agents. Strong acids. Strong bases.

Hazardous Decomposition Products
None under normal use conditions. Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon dioxide (CO2). Hydrocarbons.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin Contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Butoxy Ethanol 111-76-2	= 470 mg/kg (Rat)	= 99 mg/kg (Rabbit)	= 450 ppm (Rat) 4 h
Carbon Black 1333-86-4	> 15400 mg/kg (Rat)	> 3 g/kg (Rabbit)	-
Ethanol, 2-(butoxyethoxy)- 112-34-5	= 3384 mg/kg (Rat)	= 2700 mg/kg (Rabbit)	-
2-Dimethylaminoethanol 108-01-0	= 1803 mg/kg (Rat)	= 1220 mg/kg (Rabbit) = 1370 µL/kg (Rabbit)	= 1641 ppm (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B). This product contains carbon black which is classified as a possible carcinogen when present as respirable dust. This is not relevant for this product since it is not in a respirable form.

Chemical Name	ACGIH	IARC	NTP	OSHA	Mexico
2-Butoxy Ethanol 111-76-2	A3	Group 3	-	-	-
Carbon Black 1333-86-4	A3	Group 2B	-	X	-

ACGIH (American Conference of Governmental Industrial Hygienists)
A3 - Animal Carcinogen

IARC (International Agency for Research on Cancer)
Group 2B - Possibly Carcinogenic to Humans
Not classifiable as a human carcinogen
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
X - Present

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 0.19234456% of the mixture consists of ingredient(s) of unknown toxicity
The following values are calculated based on chapter 3.1 of the GHS document .

12. ECOLOGICAL INFORMATION

Ecotoxicity

2.19181% of the mixture consists of components(s) of unknown hazards to the aquatic environment

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Butoxy Ethanol 111-76-2	-	1490: 96 h Lepomis macrochirus mg/L LC50 static 2950: 96 h Lepomis macrochirus mg/L LC50	1000: 48 h Daphnia magna mg/L EC50 1698 - 1940: 24 h Daphnia magna mg/L EC50
Carbon Black 1333-86-4	-	-	5600: 24 h Daphnia magna mg/L EC50
Ethanol, 2-(butoxyethoxy)- 112-34-5	100: 96 h Desmodesmus subspicatus mg/L EC50	1300: 96 h Lepomis macrochirus mg/L LC50 static	100: 48 h Daphnia magna mg/L EC50 2850: 24 h Daphnia magna mg/L EC50
2-Dimethylaminoethanol 108-01-0	35: 72 h Desmodesmus subspicatus mg/L EC50	81: 96 h Pimephales promelas mg/L LC50 static	98.77: 48 h Daphnia magna mg/L EC50

Persistence and degradability
No information available.

Bioaccumulation
No information available.

Chemical Name	Partition coefficient
2-Butoxy Ethanol 111-76-2	0.81
2-Dimethylaminoethanol 108-01-0	-0.55

Other adverse effects No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes Residual vapors may explode on ignition. Never pierce, drill, grind, cut, saw or weld any empty container. Disposal should be in accordance with applicable regional, national and local laws and regulations. Since empty containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Note: DOT Ground - "Non-bulk shipments may be non-regulated per 49CFR 173.150(f)(2)"

DOT
UN/ID No. NA1263
Proper shipping name Paint, combustible
Hazard Class Combustible liquid

Packing Group	III
TDG	Not regulated
MEX	Not regulated
IATA	Not regulated
IMDG	Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Not Determined
ENCS	Not Determined
IECSC	Not Determined
KECL	Not Determined
PICCS	Not Determined
AICS	Not Determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
2-Butoxy Ethanol - 111-76-2	1.0
Ethanol, 2-(butoxyethoxy)- - 112-34-5	1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	Yes
Sudden release of pressure hazard	No
Reactive Hazard	No

US State Regulations

This product may contain substances regulated by state right-to-know regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Pennsylvania - Special Hazardous Substances	Pennsylvania - Environmental Hazard List
2-Butoxy Ethanol 111-76-2	X	X	X	-	-
Carbon Black 1333-86-4	X	X	X	X	-
Ethanol, 2-(butoxyethoxy)- 112-34-5	X	-	X	-	-
2-Dimethylaminoethanol 108-01-0	X	X	X	-	-
2-Propanol 67-63-0	X	X	X	-	X

Sec-Butyl Alcohol 78-92-2	X	X	X	-	X
Stoddard solvent, solvent naphta 8052-41-3	X	X	X	-	-
Formaldehyde 50-00-0	X	X	X	X	X
Cumene 98-82-8	X	X	X	-	X
Naphthalene 91-20-3	X	X	X	-	X
Ethylbenzene 100-41-4	X	X	X	-	X

16. OTHER INFORMATION

Issue Date 07-Apr-2015
Revision Date 07-Apr-2015
Revision Note No information available

Disclaimer

The information contained herein is derived from data provided by suppliers and other sources believed to be reliable, and is furnished without warranty of any kind. The information relating to the product is for guidance purposes only, is based only on downstream uses known to Watson Standard, and may not be valid for the product used in combination with any other materials. Users of this product must make determinations of suitability and completeness of information from this and all other sources to ensure proper use and disposal of this product, safety and health of employees, customers, and the protection of the environment. Watson Standard will not be liable for any special, incidental, or consequential damages associated with the use or handling of the product.

End of Safety Data Sheet

SAFETY DATA SHEET

Section 1: IDENTIFICATION

Product Name: Semi Paste 1700 Stripper
Product Code: B1430
MSDS Date: November 7, 2014

Flo-Strip Division
2101 Clifton Ave
St. Louis, MO 63139

General Information: 314-644-1300
CHEMTREC: 800-424-9300

Section 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

GHS Classification:
Flammable liquids, (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Carcinogenicity (Category 2)
Specific target organ toxicity - single exposure (Category 3)
Specific target organ toxicity - repeated exposure (Category 2)
Specific target organ toxicity - single exposure (Category 1)
Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 4)
Acute toxicity, Dermal (Category 4)
Reproductive toxicity (Category 2)

GHS Labeling

Symbol:

Signal Word: Danger

Hazard Statements:
Flammable liquid and vapor
Causes skin and serious eye irritation
Suspected of causing cancer
Causes damage to organs.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
Harmful if swallowed.
Harmful in contact with skin.
Harmful if inhaled.
Suspected of damaging fertility or the unborn child

Precautionary Statements:
Prevention:
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Keep container tightly closed.
Ground/Bond container and receiving equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wash hands thoroughly after handling.
Wear protective gloves/protective clothing/eye protection/face protection.
Do not handle until all safety precautions have been read and understood.
Obtain special instructions before use.
Do not breathe mist/vapors/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Response:
IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Wash skin with plenty of water/shower.
Get medical advice/attention if you feel unwell.
Take off contaminated clothing and wash it before reuse.
In case of fire: consider carbon dioxide, dry chemical powder, dry sand, limestone powder, or alcohol resistant foam to extinguish.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF exposed or concerned: Get medical advice/attention.
If skin irritation occurs: Get medical advice/attention.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
Call a poison center/doctor if you feel unwell.
If swallowed: Call a poison center/doctor if you feel unwell.
Rinse mouth.
Storage:
Store in a well-ventilated place. Keep cool. Keep container tightly closed.
Store locked up.
Disposal:
Dispose of contents/ container to an approved waste disposal plant.

Potential Health Effects: See Section 11 for more information

This product contains carcinogens or potential carcinogens as listed by IARC, NTP, or ACGIH.

This material contains components that are considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Environmental Effects: See Section 12 for more information.

Section 3: COMPOSTION/INFORMATION ON INGREDIENTS

No.	Component CAS REG. NO.	Amount %	OSHA		ACGIH	
			TWA	STEL	TWA	STEL

1	Methanol CAS #67-56-1	1-20	Not avail	Not avail	200 ppm	250 ppm
2	Toluene CAS #108-88-3	1-20	200 ppm	Not Avail	20 ppm	Not Avail
3	Dichloromethane CAS #75-09-2	50-100	25 ppm (action level 12.5 ppm)	125 ppm	50 ppm	Not Avail

Section 4: FIRST AID MEASURES

Emergency first aid procedures by route of exposure:

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air. If affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Never give anything by mouth to an unconscious person. If a person vomits when lying on his back, place him in the recovery position. Medical care must emphasize the control of acidosis and the use of intravenous bicarbonate has been lifesaving. Evidence is good that treatment of methanol absorption is enhanced through the administration of ethanol, which should be given to produce a blood level of at least 0.1%. Ethanol diminishes the production of toxic metabolites of methanol. Blood methanol level of 50 mg/100mL is an indication for hemodialysis, which has improved the prognosis of methanol intoxication. Methanol is often confused with beverage alcohol (ethylalcohol). Care must be taken to prevent its ingestion, the most frequent cause of methanol poisoning. Prevent aspiration of vomit. Turn victim's head to the side. Do not induce vomiting. If the material is swallowed, get medical attention or advice.

Skin: Wash off for 20 minutes. Remove contaminated clothing, and any extraneous chemical.

Eyes: Immediately flush eyes with water for at least 20 minutes while holding eyelids open. Remove contact lenses. Get medical attention if irritation persists.

Note to physician: In case of ingestion or massive inhalation, observe victim as an inpatient because of slow metabolism causes latent period of 24 hours between exposure and acidosis and blindness.

Section 5: FIRE FIGHTING MEASURES

Flash Point: 43°C (109.4°F)
Lower Explosion Limit: (Methanol) 36.5 %
Upper Explosion Limit: (Methanol) 6%
Auto Ignition Temp (Methanol): 385°C

Suitable Extinguishing Media:
Use methods appropriate for the surrounding fire. Consider carbon dioxide, dry chemical powder, dry sand, limestone powder, or alcohol resistant foam.

Products of Combustion: Incomplete combustion may form carbon monoxide. Fire or intense heat may cause violent rupture of packages. Flash back possible over considerable distance. May form explosive mixtures in air. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes. In the event of fire, cool tanks with water spray.

Fire Fighting Equipment/Instructions:

Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self-contained breathing apparatus for fire-fighting if necessary

HAZARD	HMIS	NFPA
Toxicity	2	2
Fire	2	2
Reactivity	0	0

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: For large spills wear gloves, Tyvek suits, safety glasses, and appropriate NIOSH approved respiratory protection. Keep unnecessary personnel away. Eliminate all sources of ignition or flammables that may come into contact with a spill of this material.

Special Properties: Flammable Liquid! This material releases vapors at or below ambient temperatures. When mixed with air in certain proportions and exposed to an ignition source, its vapor can cause a flash fire. Use only with adequate ventilation. Vapors are heavier than air and may travel long distances along the ground to an ignition source and flash back. A vapor and air mixture can create an explosion hazard in confined spaces such as sewers. If container is not properly cooled, it can rupture in the heat of a fire.

Environmental Precautions: Prevent discharge to open bodies of water, municipal sewers, and watercourses.

Method for Containment: Absorb spilled liquid in suitable non-flammable inert material such as clay, vermiculite or diatomaceous earth. Control runoff and isolate discharged material for proper disposal. Approach release from upwind.

Methods for Clean-up: Ventilate area of leak or spill. Use spark-proof tools to sweep or scrape up and containerize in approved chemical waste container.

Section 7: HANDLING AND STORAGE

Handling:
Keep away from heat, sparks and flame. Use only with adequate ventilation.
To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Storage:
Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Keep away from oxidizers.

Section 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protective Equipment (PPE)

Respiratory Protection: Wear appropriate respirator when ventilation is inadequate.
Eye/Face Protection: Splash proof chemical goggles and face shield.
Hand Protection: Fluorinated rubber gloves, impervious gloves, the breakthrough time of the selected glove(s) must be greater than the intended use period.
Body: Avoid skin contact. If product comes in contact with clothing, immediately remove soaked clothing and shower. Wear long sleeve shirts and trousers without cuffs.

Other Protective Equipment:
Facilities storing or utilizing this material should be equipped with eyewash and safety shower facilities.

See section 3 for exposure limits.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance, State	Clear liquid
Color	Colorless
Odor	Not Available
pH	Not Available
Vapor Density (Dichloromethane)	2.93 (air=1)
Boiling Point (Dichloromethane)	39.8°C
Vapor Pressure (Dichloromethane)	400 mmHg at 24°C
Melting Point (Dichloromethane)	-96.7°C
Freezing Point	Not Available
Flash Point (See Section 5)	
Flammability Properties (See section 5)	
Solubility Water (Dichloromethane)	200 g/L at 20°C
Density (Dichloromethane)	1.3254-1.3258 g/cm3 at 20°C
Evaporation Rate	Not Available
Octanol/Water partition coefficient (Kow) (Dichloromethane)	1.25
Auto-ignition temperature:	Not Available
Decomposition temperature:	Not Available

Section 10: STABILITY AND REACTIVITY

Stability: This material is considered stable at ambient temperatures 70°C (21°C).

Condition to Avoid: Flames, sparks, electrostatic discharge, heat and other ignition sources.

Incompatible Materials: This product reacts with reactive metals (eg. Sodium, calcium, zinc etc), materials reactive with hydroxyl compounds, and oxidizing agents.

Hazardous Decomposition: Upon decomposition, this product evolves carbon monoxide, carbon dioxide, aldehydes, and flammable hydrocarbon fragments (eg acetylene).

Hazardous Reactions: This product will not undergo polymerization.

Section 11: TOXICOLOGICAL INFORMATION

ACUTE EFFECTS:
Component Analysis LD50

Methanol (67-56-1)
LD_{50}: Oral, Mouse - 7300 mg/Kg
LD_{50}: Oral, Rabbit - 14200 mg/Kg
LD_{50}: Oral, Rat - 5628 mg/Kg
LD_{50}: Skin, Rabbit - 15800 mg/Kg

LC_{50}: Inhalation, Rat - 64000 ppm

Toluene (108-88-3)
Inhalation LC50 Rat 12.5 mg/L 4 h;
Inhalation LC50 Rat >26700 ppm 1 h;
Oral LD50 Rat 636 mg/kg;
Dermal LD50 Rabbit 8390 mg/kg;
Dermal LD50 Rat 12124 mg/kg

Dichloromethane (75-09-2)
Oral LD50 Rat >2000 mg/kg;
Inhalation LC50 Rat 76000 mg/m3 4 h
Skin - rabbit - Skin irritation - 24 h
Eyes - rabbit - Mild eye irritation - 24 h

CHRONIC EFFECTS:
Component

Methanol (67-56-1)
Carcinogenic Effects: Not available
Mutagenic Effects: Laboratory experiments have resulted in mutagenic effects.
Teratogenic Effects: Chronic exposure may cause reproductive disorders and teratogenic effects.
Developmental Toxicity: Chronic exposure may cause reproductive disorders.
Target Organs: Eyes, CNS, skin, GI tract, and respiratory system **Inhalation:** An irritant to the mucous membranes. Toxic effects exerted upon nervous system, particularly the optic nerve. Once absorbed into the body, it is very slowly eliminated. Symptoms of over-exposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death. A person may get better but then worse up to 30 hours later. **Ingestion:** Toxic. Symptoms similar to those for inhalation, but severity and speed of appearance may be greater. May be fatal or cause blindness. Usual fatal dose: 100 – 125 ml. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure. **Skin Contact:** Methyl Alcohol is a defatting agent and may cause skin to become dry and cracked. Skin absorption can occur in harmful amounts; symptoms may parallel inhalation exposure. **Eye Contact:** Irritant, characterized by a burning sensation, redness, tearing, inflammation, possible corneal injury, painful sensitization to light. Continued exposure may cause lesions. **Chronic Exposure:** Marked impairment of vision has been reported. Repeated or prolonged skin contact may cause dermatitis. Chronic exposure may cause reproductive disorders and teratogenic effects. Laboratory experiments have resulted in mutagenic effects. **Aggravation of Pre-Existing Conditions:** Persons with pre-existing skin disorders or eye problems or impaired liver or kidney function may be more susceptible to the effects of the substance.

Toluene (108-88-3)
Carcinogenic Effects: A4 - Not classifiable for human or animal by ACGIH.
Mutagenic Effects: Not Available.
Teratogenic Effects: Not Available
Developmental Toxicity: Reproductive effects in experimental animals and in long term chemical abuse situations.
Target Organs: Long-term overexposure to toluene has been associated with impaired color vision. Also, long-term overexposure to toluene in occupational environments has been associated with hearing damage. Skin, respiratory system, Central nervous system, Heart, blood, kidneys, lungs, liver, mucous membrane, brain, eyes, lens, or cornea. **Skin**: May cause moderate skin irritation. Not expected to be a sensitizer. **Inhalation:** Signs of eye, throat, and respiratory tract irritation (cough and difficulty breathing), CNS depression (fatigue, dizziness, headache, collapse, coma and death) and possible cardiac sensitization may occur after exposure to high vapor concentrations. **Eye:** Moderate eye irritant. Effects of eye irritation are reversible. **Ingestion:** Ingestion may cause discomfort and irritation of the gastrointestinal tract and CNS

depression (fatigue, dizziness, collapse, coma and death). Aspiration into the lung may cause fatal chemical pneumonitis. May lead to potentially fatal cardiac sensitization.

Dichloromethane (75-09-2)
Carcinogenic Effects: NTP – reasonably anticipated to be a human carcinogen.
IARC – Possible carcinogen 2B
Mutagenic Effects: Genotoxicity in vivo – rat – Oral DNA Damage
Teratogenic Effects: Has been toxic to the fetus in lab animals at doses toxic to the mother.
Developmental Toxicity: Not available
Target Organs: Skin, CVS, eyes, CNS (in animals: lung, liver, salivary, and mammary glands tumors)
INHALATION: Respiratory tract irritation and central nervous system depression with symptoms of headaches, dizziness, nausea, unconsciousness and even death in extreme cases. **SKIN:** Irritation, Burn (immediately remove wet clothing) **EYES:** Irritation **INGESTION:** Gastrointestinal tract irritation, nausea, vomiting and diarrhea. Possible chemical pneumonia if liquid is aspirated into lungs.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity: Methanol (67-56-1)
EC50 (48 h) : 13,200 mg/l Species : Rainbow trout (Oncorhynchus mykiss).
EC50 (48 h) : 16,000 mg/l Species : Bluegill sunfish (Lepomis macrochirus).
EC50 (48 h) : > 10,000 mg/l Species : Daphnia

Ecotoxicity: Toluene (108-88-3)
96 Hr EC50 Pseudokirchneriella subcapitata: >433 mg/L;
72 Hr EC50 Pseudokirchneriella subcapitata:12.5 mg/L [static] mg/L [flow-through] (1 day old);
96 Hr LC50 Pimephales promelas: 12.6 mg/L [static];
96 Hr LC50 Oncorhynchus mykiss: 5.89-7.81 mg/L [flowthrough];
96 Hr LC50 Oncorhynchus mykiss: 14.1- 17.16 mg/L [static];
96 Hr LC50 Oncorhynchus mykiss: 5.8 mg/L [semi-static];
96 Hr LC50 Lepomis macrochirus: 11.0-15.0 mg/L [static];
96 Hr LC50 Oryzias latipes: 54 mg/L [static];
96 Hr LC50 Poecilia reticulata: 28.2 mg/L [semi-static];
96 Hr LC50 Poecilia reticulata: 50.87-70.34 mg/L [static]
48 Hr EC50 Daphnia magna: 5.46 - 9.83 mg/L [Static];
48 Hr EC50 Daphnia magna: 11.5 mg/L

Ecotoxicity: Dichloromethane (75-09-2)
48 Hr LC50 Eisenia foetida: 0.3 mg/cm2 [filter paper]
48 Hr LC50 Eisenia foetida: 304 mg/cm2 [filter paper]
96 Hr EC50 Pseudokirchneriella subcapitata: >500 mg/L
72 Hr EC50 Pseudokirchneriella subcapitata: >500 mg/L
96 Hr LC50 Pimephales promelas: 140.8-277.8 mg/L [flow-through];
96 Hr LC50 Pimephales promelas: 262-855mg/L [static];
96 Hr LC50 Lepomis macrochirus: 193 mg/L [static];
96 Hr LC50 Lepomis macrochirus: 193 mg/L [flow-through]
48 Hr EC50 Daphnia magna: 1532 - 1847 mg/L [Static];
48 Hr EC50 Daphnia magna: 190 mg/L

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations.

Section 14: TRANSPORT INFORMATION

Proper Shipping Name: Toxic, liquids, organic, n.o.s.
Hazard Class: 6.1
Identification No.: UN2810
Packing Group: III
Label: Toxic

Section 15: REGULATORY INFORMATION

TSCA Inventory This product and/or its components are listed on the Toxic Substances Control Act (TSCA) inventory.

SARA 302/304 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to Subparts 302 and 304 to submit emergency planning and notification information based on Threshold Planning Quantities (TPQs) and Reportable Quantities (RQs) for "Extremely Hazardous Substances" listed in 40 CFR 302.4 and 40 CFR 355. No components were identified.

SARA 313: Methanol (CAS #67-56-1) 1.0% de minimus, Toluene (CAS #108-88-3), Dichloromethane (CAS #75-09-2) 0.1 % de minimis concentration

CERCLA The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center concerning release of quantities of "hazardous substances" equal to or greater than the reportable quantities (RQ's) listed in 40 CFR 302.4. As defined by CERCLA, the term "hazardous substance" does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically designated in 40 CFR 302.4. Chemical substances present in this product or refinery stream that may be subject to this statute are: Toluene [CAS No.: 108-88-3] RQ = 1000 lbs. (453.6 kg), Dichloromethane [75-09-2] RQ = 1,000 lb, Methanol [CAS No. 67-56-1] RQ = 5,000

SARA 311/312 Hazard The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. This material would be classified under the following hazard categories: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard, Fire Hazard

Additional Regulatory Remarks
Federal Hazardous Substances Act, related statutes, and Consumer Product Safety Commission regulations, as defined by 16 CFR 1500.14(b)(3) and 1500.83(a)(13): This product contains Toluene which may require special labeling if distributed in a manner intended or packaged in a form suitable for use in the household or by children. Precautionary label dialogue should display the following: **DANGER: Contains Toluene! Harmful or fatal if swallowed! Call Physician Immediately. Vapor Harmful! KEEP OUT OF REACH OF CHILDREN!**
California Proposition 65

WARNING: This product contains a chemical that is known to the State of California to cause cancer, birth defects, or other reproductive harm.

Section 16: OTHER SUPPLEMENTAL INFORMATION

Prepared by: Chemisphere Corp. on 3/20/14

Disclaimer:
The information and recommendations contained in the Safety Data Sheet (SDS) are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. The information and recommendations set forth herein are presented in good faith and believed to be correct as of this date hereof.

Chemisphere, however, makes no representation as to the completeness or accuracy thereof, and information is supplied upon the express condition that the persons receiving the information will be required to make their own determination as to its suitability for their purposes prior to use. In no event will Chemisphere be responsible for any damages of any nature whatsoever resulting from the use of, reliance upon, or the misuse of this information. User assumes all risk of use, storage and handling of the product in compliance with applicable federal, state and local laws and regulations.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY OTHER NATURE, ARE MADE BY CHEMISPHERE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH THE INFORMATION REFERS. The information as supplied herein is simply to be informative and intended solely to alert the user of the substance which is the subject matter of this MSDS. The ultimate compliance with federal, state or local regulations concerning the use of this compound, or compliance with respect to product liability, rests solely upon the purchaser thereof.

This information relates to the material designated and may not be valid for such material used in combination with any other materials nor in any process.

SAFETY DATA SHEET

ZEP BIG ORANGE GL

Version 2.2 Revision Date 02/09/2016 Print Date 12/01/2016

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Material name : ZEP BIG ORANGE GL

Material number : 000000000000041521

Manufacturer or supplier's details

Company : Zep Inc.

Address : 1310 Seaboard Industrial Blvd., NW
Atlanta, GA 30318

Telephone : 404-352-1680

Emergency telephone numbers		
For SDS Information	:	Compliance Services 1-877-428-9937
For a Medical Emergency	:	877-541-2016 Toll Free - All Calls Recorded
For a Transportation Emergency	:	CHEMTREC: 800-424-9300 - All Calls Recorded. In the District of Columbia 202-483-7616

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	liquid
Colour	clear, orange
Odour	strong

GHS Classification

Flammable liquids : Category 3
Skin irritation : Category 2
Eye irritation : Category 2A
Skin sensitisation : Category 1
Aspiration hazard : Category 1

GHS Label element

Hazard pictograms :

Signal word : Danger

Hazard statements : H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 If eye irritation persists: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
Dispose of contents/container in accordance with local regulation.

Potential Health Effects

Carcinogenicity:

IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration [%]
Citrus, ext.	94266-47-4	>= 70 - < 90
Nonylphenol, ethoxylated	9016-45-9	>= 1 - < 5
4-Nonylphenol branched, ethoxylated	127087-87-0	>= 1 - < 5

The exact percentages of disclosed substances are withheld as trade secrets.

SECTION 4. FIRST AID MEASURES

General advice : Consult a physician.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may appear several hours later.
Do not leave the victim unattended.

If inhaled : If unconscious place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact : Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Keep respiratory tract clear.
Do NOT induce vomiting.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical
Dry sand

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not use a solid water stream as it may scatter and spread fire.
Cool closed containers exposed to fire with water spray.

Do not allow run-off from fire fighting to enter drains or water courses.

Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products	:	Carbon dioxide (CO2) Carbon monoxide Nitrogen oxides (NOx) Smoke Carbon dioxide (CO2) Carbon monoxide Smoke
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus. Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Material can create slippery conditions.
	:	Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.
Environmental precautions	:	Local authorities should be advised if significant spillages cannot be contained. Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	:	Keep in suitable, closed containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to

local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on safe handling	:	For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Keep away from heat. Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Conditions for safe storage	:	No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.
Materials to avoid	:	Keep away from oxidizing agents and strongly acid or alkaline materials.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Engineering measures	:	Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Hand protection
Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection	:	Safety glasses Ensure that eyewash stations and safety showers are close to the workstation location. Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Protective measures	:	Wear suitable protective equipment. When using do not eat, drink or smoke.
Hygiene measures	:	Wash hands before breaks and immediately after handling the product. Remove contaminated clothing and protective equipment before entering eating areas. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Colour	:	clear, orange
Odour	:	strong
Odour Threshold	:	No data available
pH	:	Not applicable
Melting point/freezing point	:	No data available
Boiling point	:	170 °C
Flash point	:	53.9 °C Method: closed cup
Evaporation rate	:	< 1
Upper explosion limit	:	No data available
Lower explosion limit	:	No data available
Vapour pressure	:	2.533 hPa
Relative vapour density	:	No data available
Density	:	0.864 g/cm3
Solubility(ies)		
Water solubility	:	emulsifiable
Solubility in other solvents	:	Not applicable

Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity		
Viscosity, kinematic	:	3.8 mm2/s (20 °C)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No decomposition if stored and applied as directed.
Chemical stability	:	Stable under normal conditions. No decomposition if stored and applied as directed.
Possibility of hazardous reactions	:	No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.
Conditions to avoid	:	Extremes of temperature and direct sunlight. Heat, flames and sparks. Heat, flames and sparks.
Incompatible materials	:	Acids Oxidizing agents
Hazardous decomposition products	:	Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Nitrogen oxides (NOx)

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate : > 5,000 mg/kg Method: Calculation method

Components:

4-Nonylphenol branched, ethoxylated:

Acute oral toxicity	:	LD50 Rat: 5,000 mg/kg

Acute dermal toxicity : LD50 Rabbit: 2,573 mg/kg

Skin corrosion/irritation

Product:

Remarks: May cause skin irritation and/or dermatitis.

Serious eye damage/eye irritation

Product:

Remarks: Severe eye irritation

Remarks: May cause irreversible eye damage.

Respiratory or skin sensitisation

Product:

Remarks: Causes sensitisation.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Citrus, ext.:
Nonylphenol, ethoxylated:
4-Nonylphenol branched, ethoxylated:

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration toxicity

No data available

Further information

Product:

Remarks: Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

Product:

Partition coefficient: n-octanol/water	:	Remarks: No data available

Mobility in soil

No data available

Other adverse effects

No data available

Product:

Regulation	40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal., Very toxic to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Dispose of in accordance with local regulations. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

Transportation Regulation: 49 CFR (USA):

NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

Transportation Regulation: IMDG (Vessel):
UN1993, FLAMMABLE LIQUID, N.O.S., (D-LIMONENE), 3, III

Transportation Regulation: IATA (Cargo Air):
UN1993, Flammable liquid, n.o.s., (D-LIMONENE), 3, III

Transportation Regulation: IATA (Passenger Air):
UN1993, Flammable liquid, n.o.s., (D-LIMONENE), 3, III

Transportation Regulation: TDG (Canada):
NOT REGULATED AS DANGEROUS GOODS OR HAZARDOUS MATERIAL

SECTION 15. REGULATORY INFORMATION

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Fire Hazard
Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

California Prop 65 This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA	On TSCA Inventory
DSL	All components of this product are on the Canadian DSL
AICS	Not in compliance with the inventory
NZIoC	Not in compliance with the inventory
PICCS	Not in compliance with the inventory
IECSC	Not in compliance with the inventory

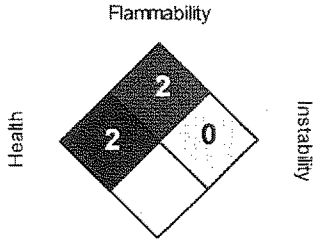
Inventory Acronym and Validity Area Legend:

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TCSI (Taiwan), TSCA (USA)

SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 =Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

OSHA GHS Label Information:

Hazard pictograms :

Signal word : **Danger:**

Hazard statements : Flammable liquid and vapour. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.

Precautionary statements :

Prevention: Keep away from heat/sparks/open flames/hot surfaces. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ ventilating/ lighting/ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ eye protection/ face protection.
Response: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician. IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do NOT induce vomiting. If skin irritation or rash occurs: Get medical advice/ attention. If eye irritation persists: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
Storage: Store in a well-ventilated place. Keep cool. Store locked up.
Disposal: Dispose of contents/container in accordance with local regulation.

Version:	2.2
Revision Date:	02/09/2016
Print Date:	12/01/2016

We believe the statements, technical information and recommendations contained herein are reliable, but they are given without warranty or guarantee of any kind. The information in this document applies to this specific material as supplied. It may not be valid for this material if it is used in combination with any other materials. Users should make their own investigations to determine the suitability and applicability of the information for their particular purposes.

This SDS has been prepared by the Compliance Services organization supporting this manufacturer, supplier or distributor.

Zep Inc. markets products under well recognized and established brand names such as Zep®, Zep Commercial®,Zep Professional®, Enforcer®, National Chemical™, Selig™, Misty®, Next Dimension™, Petro®, i-Chem®, TimeMist®, TimeWick™, MicrobeMax®, Country Vet®, Konk®, Original Bike Spirits®, Blue Coral®, Black Magic®, Rain-X®, Niagara National™, FC Forward Chemicals®,Rexodan®, Mykal™, and a number of private labeled brands.

Rev. (03-3-14) **CONFIDENTIAL**

EPCRA INSPECTION REPORT (302-312)

Facility Name Container Life Cycle Management Mid-America Steel Drum **Tel. #** 414-483-8800
Address 3950 South Pennsylvania Avenue, St. Francis, WI

Inspector's names: James Entzminger
Inspection date: 2/28/14 **Type of inspection:** EPCRA

Current Owner: Mike Hights, Landlord

Current Operator:

SUMMARY OF FINDINGS

5 Facilities w/ IN, TN, AK Memphis, Arcadelphia
Grief Joint Venture
Grief Purchased Assets

ENTRY/OPENING CONFERENCE

Identification displayed? Y
Purpose of inspection explained?______
Notice of inspection presented and signed by facility contact?___ (Exh ___)
Any attempt to deny entry?________
Identify persons interviewed, titles and areas of responsibility:

(a) Mark Ferguson ~~VP/GM~~ Plant manager
(b) Ian Boyle VP/GM Reconditions CLCM
(c) Linda Benfield, Attorney
(d) Scott Bush Grief
(e) Robert Jurawski, maintenance

DESCRIPTION OF FACILITY

Fully describe facility operations:

Receives "empty" drums 5 gallon, 15 gallon, 30 gallon + 55 gallon steel and plastic - Cleans inspects reconditions, certifies, ships for reuse or scraps

Primary SIC Codes _____ NAICS code(s) _____
Number of full-time employee's _____ Corporate wide _____
Facility sq. feet _____ Annual sales $ _____

Relationship to other firms, parent corporation, subsidiaries and location of off-site facilities:

6 total facilities - (3) Wisconsin, (1) Indianapolis, (1) Tennessee, (1) Arkansas

TITLE III COMPLIANCE REVIEW

SECTION 302 (due 5/17/87)

(1)Does facility have, on site, at any one time, extremely hazardous substances (EHS) at or above the TPQ?_____

(2)List or obtain documentation (Exh._____):

	Chemical	Max. on site (lbs.)	TPQ
(a)	Sulfuric Acid	4,000	1,000
(b)			
(c)			
(d)			
(e)			
(f)			
(g)			
(h)			
(i)			

How was the maximum quantity on-site determined or calculated?

SERC notified of EHS chemical per Sec. 302?____ Date:_____ (Exh.____)

SECTION 303 (due 9/17/87)

Facility coordinator identified per Sec. 303 and date LEPC was notified?
Name/Title_____ Date:_____(Exh____)

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SECTION 304 (Immediate notification required to NRC, SERC, LEPC)
Has facility experienced any releases or discharges at or above the RQ?____

(1) (2) (3)

Chemical _____
RQ _____
Amt Released _____
Release Date/Time _____

Who Notified/Date/Time

NRC __/__/__ ___ hrs. after the release.
SERC __/__/__ ___ hrs. after the release.
LEPC-1 __/__/__ ___ hrs. after the release.
LEPC-2 __/__/__ ___ hrs. after the release.

For each of the above releases, has a written follow-up notification (304(c)) been provided to the SERC & LEPC(s) providing additional information on:

Date Sec.304(c) Notification:

SERC __/__/__ LEPC-1 __/__/__ LEPC-2 __/__/__

Criteria for Adequacy:

(a) Chemical name or identity or any substance involved in the release? Y/N

(b) An indication of whether the substance is on the list referred to in Section 302(a)? Y/N

(c) An estimate of the quantity of any such substance that was released into the environment? Y/N

(d) The time and duration of the release? Y/N

(e) The medium or media into which the release occurred? Y/N

(f) Proper precautions to take as a result of the release? Y/N

(g) The name and telephone number of the person or persons to be contacted for further info.? Y/N

(h) Actions taken to respond and contain the release? Y/N

(i) Known or anticipated acute/chronic health risks? Y/N

(j) Remedial attention for exposed individuals? Y/N

Notification Adequate: Y/N (Exh._____)

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Section 311 (due 10/17/87 SIC 20-39, 9/24/88 non-mfg. 4/30/89 const.)

(1) Is facility required to maintain MSDS's under the OSHA Hazard Communication Standard 29 CFR 1910.1200 (no specific chemical list)?_____

(2) Has the facility conducted a comprehensive audit to identify MSDS chemicals on-site and to determine if 500 lb./10,000/TPQ thresholds were exceeded?_____

(3) List of OSHA chemicals mfrd., processed, used/stored, obtained?_____ (Exh.____)

(4) How were the thresholds (maximum amount) determined?

_____

(5) Section 311 info supplied to the SERC Y/N, LEPC Y/N, and the local fire department Y/N?
Date? _____
List of chemicals? _____ (Exh.____)
MSDS's? _____ (Exh.____)

(6) Have there been other chemicals added/changes made requiring submission of an updated chemical list or MSDSs? Y/N

(7) If yes, has the facility submitted updated lists or MSDS? Y/N

Section 312 (due 3/1/88 SIC 20-39, 3/1/89 non-mfg. 3/1/90 construction)

(1) Were Tier I or Tier II forms submitted for all required chemicals? _____

	Form Submitted (I or II)	SERC/Date	LEPC/Date	Fire Dept. /Date
CY1999				
CY2000				
CY2001				
CY2002				
CY2003				
CY2004				
CY2005				
CY2006				
CY2007				
CY2008				
CY2009				
CY2010				
CY2011				
CY2012				
CY2013				
CY2014				
CY2015				
CY2016				

(2) What procedures are used to update section 312 information for annual submittal and to ensure additional or new chemical data is submitted within 90 days?

_____

_____

_____

(3) Is facility aware of annual reporting requirements under Section 312?_____

(4) Have facility complete and sign Inspection Chemical Inventory Form for most recent years, for all reportable chemicals.

Amanda Baggs

Norwich
Empty Drums

Floor Drains

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FACILITY INSPECTION/WALK THROUGH

Ammonia [illegible]

Inspection observations:

Receiving Dock Empty Drums
Drum Flushes 5 - 30 - 15 - 55 Drums
Steel + Plastic

Propane Tanks, [illegible] 3 - 4 80#
Wash no Burning

Solvent tanks - wash

Water process tank - Recycle - Dirty to clean
Clean
Oil clean wash tank

Hydrochloric Acid - Remove rust (2) 330 gal Totes
Caustic

Sand Blasted - Steel Shot

Acetone

Bake oven - 350° F first stage 320° F second stage

Paint Booth

Waste Shoot

Floor Drains

Caustic Soda 50%

Air Scrubber - water

Wastewater (5) 55 gal sulfuric 66° 700 [illegible]
Caustics 2 (55) gal 450# tone [illegible]
Ferric Chloride 2 55 ga 600#ea [illegible]
Chem-Aqua (3 (55) 500#ea + one

Acetone (5) 55 360# ea

7400 gal used oil tank
Oil water Separator

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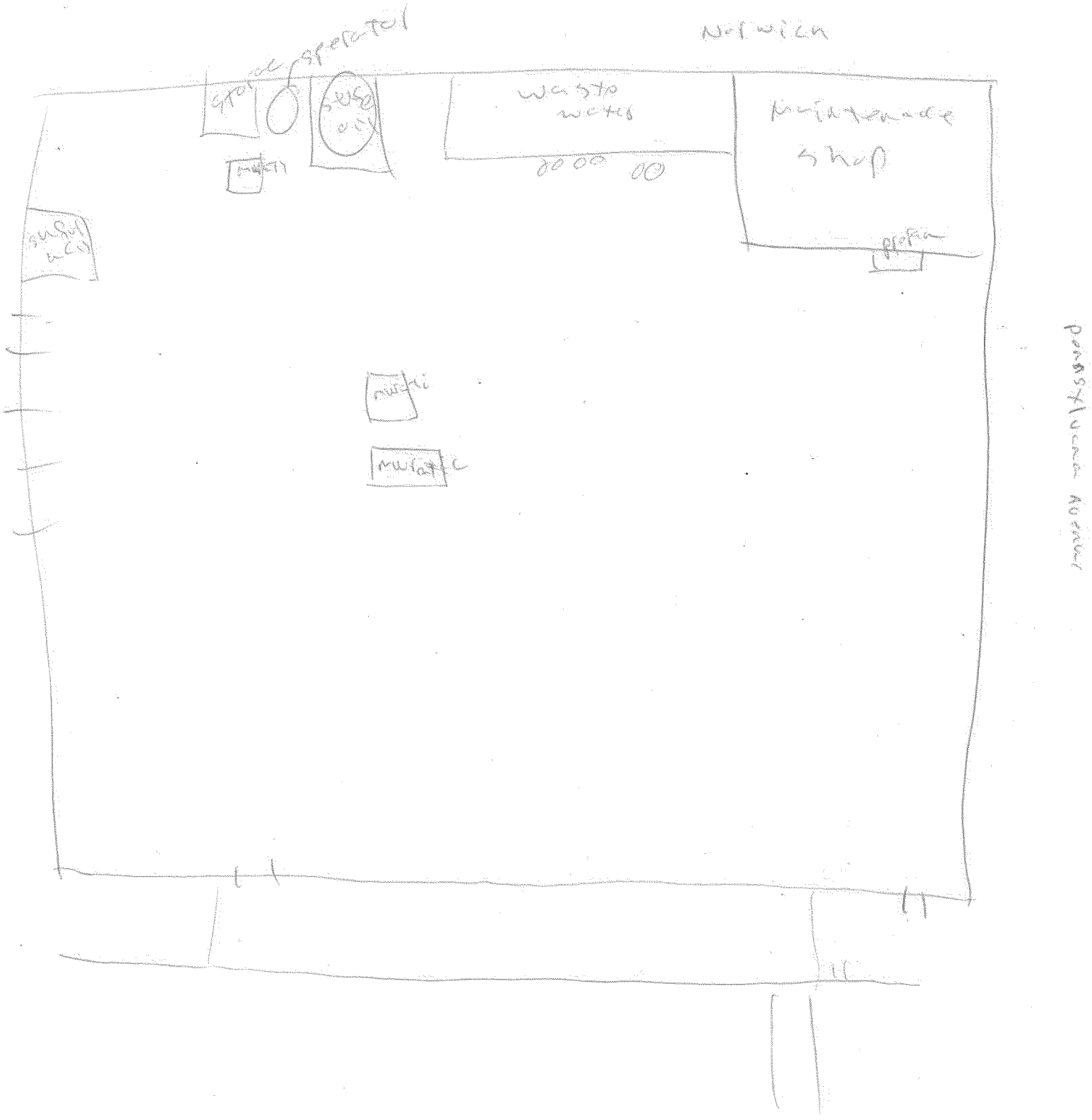
SITE SKETCH

Or site plan provided by facility. (EXH. ____)



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EXIT CONFERENCE

Discuss apparent deficiencies. Obtain commitment for correction/compliance where appropriate. Discuss in Exit Conference/Summary section below.
(Note: do not discuss compliance f/u activity except in very general terms)

Ensure facility has working knowledge of Title III and reporting obligations.
Title III informational materials provided: _____

Receipt for documents provided (signed by facility contact)? _____
(Note: Each document should be identified on a Receipt form)

Any confidentiality claims asserted? _____ Explain below.

Exit Conference/Summary:

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EXHIBITS

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Date report completed: _____ Prepared by: _____
Report review date: _____ Reviewed by: _____
Inspection Disposition: _____

_____

_____

_____

Action Date: _____

Sulfuric Acid (6) 55gal Drums 440# each
~~2,200 #~~ 3,960 #

caustic soda 50% (7) 55-gal Drum 650# each
sodium hydroxide (250, 250)(50%) = ~~3,275 #~~ 3,275 #

ferric chloride (6) (55gal) Drums = 600#
3,600 #

Acetone (5) 55 gal 360#ea = 1,800 #

muritic Acid (3) 330 gallan totes

Propane

Compositions

Mid-America Steel Drum Company
Container Lifecycle management office
3950 South Pennsylvania Avenue
St. Francis, Wisconsin 53209

8 1/2 in. x 7 in. • 20 Sheets • Wide Ruled

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